

2020 Boston Bike Counts

Learn about highlights from the bicycle count data we collected in 2020.

Boston Transportation Department
March 5, 2021

Every year, we count the number of people riding bicycles at specific locations across the City. By 2030, our goal is to increase the number of people biking fourfold. Counting helps us measure our progress.

New! March and December counts

In 2020, we collected bicycle count data in all four seasons for the first time. We collected counts over two days in March, in June, in September, and in December. By doing so, we can begin to understand how biking volumes change in different times of the year, during different weather conditions, and under changed travel patterns.

COVID-19 Pandemic

2020 was different from previous years. In early March, [emergency measures](#) were announced in response to the COVID-19 outbreak in Massachusetts. As a result, many people changed their travel patterns.

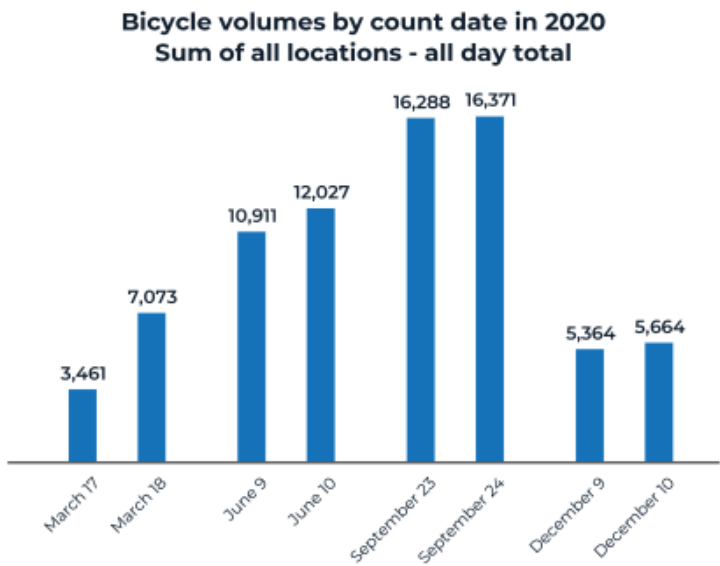
Our spring bike counts were taken on March 17 and 18. Some of the COVID-19 emergency measures were announced just days beforehand. On [March 10, Governor Baker declared a state of emergency in Massachusetts](#). Significant physical distancing measures were announced between March 10 and 17. The [statewide stay-at-home order was issued on March 23](#), the week after our counts. As a result, fewer people were traveling by the time we collected bike counts. Both bicycle and vehicle volumes were lower than previous years.



Looking at 2020

At [18 locations](#), we collected data all four seasons. In this section, we highlight some patterns we found looking at these 18 locations during 2020. [View a list of these locations.](#)

We counted at these 18 locations over two days in March, June, September, and December 2020. They represent key biking corridors with different types of land uses and bike facilities. You can find detailed information about each season in the "March 2020", "June 2020", "September 2020", and "December 2020" sections.

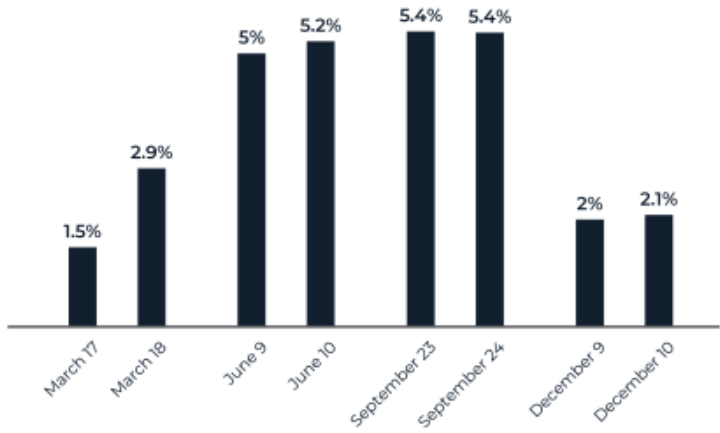


As expected, the number of people biking varied across the four count cycles.

Across the 18 locations, we counted the highest bicycle volumes in September—over 16,000 per day. The second highest volumes were in June, ranging from about 10,000 to 12,000 per day. March and December saw the lowest volumes. about 70% less than the September volumes.

Motor vehicle volumes were the lowest in June and highest in September. We know from the [MassDOT mobility dashboard](#) that statewide vehicle miles traveled were lowest the week of March 30, two weeks after our counts were taken that month. By our June counts, Massachusetts was in Phase 1 of reopening.

Bicyclists as a share of all traffic by count date in 2020
Average of all locations - all day total



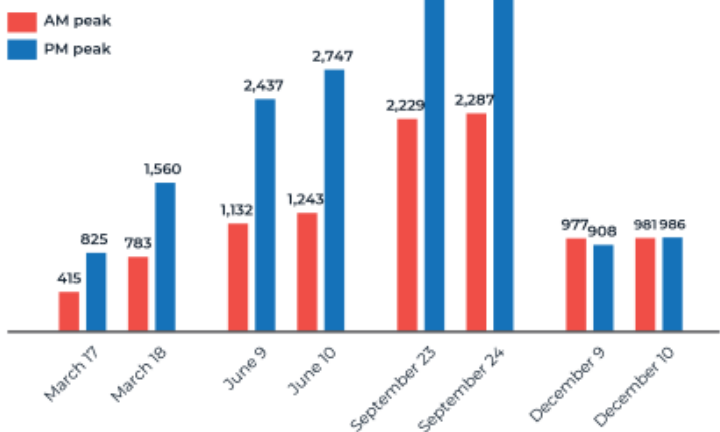
Does not include two locations where we only counted bicyclists: Atlantic Avenue south of Commercial Street and Southwest Corridor Bicycle Path south of Heath Street

Although more people were biking during our September counts, people biking made up over five percent of all traffic in **both** June and September.

The share of people biking of all traffic was lower in March and December, ranging from 1.5 to 2.9 percent.

To calculate bicycles as a percentage of all vehicles, we divide the number of bikes counted by the number of all vehicles counted (bikes, cars, trucks, and buses).

Bicycle volumes by count date in 2020
Sum of all locations - AM peak and PM peak

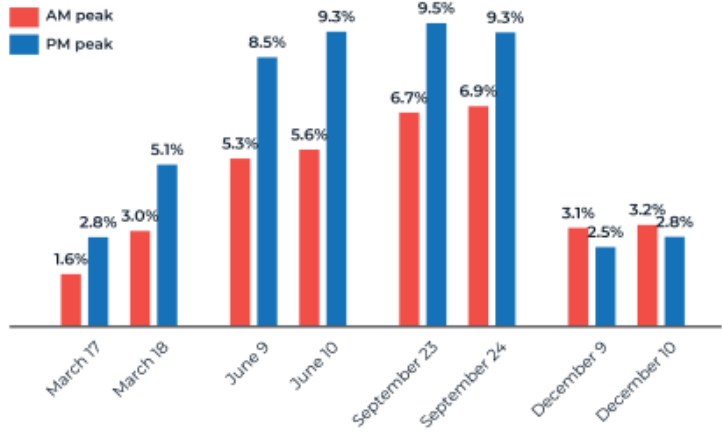


In 2020, more people were biking during evening peak commute hours compared to the morning peak commute hours.

This was especially true in March, June, and September, when the evening peak volumes were almost double the morning peak commute hours. In December, we counted almost the same number of bicyclists in the morning and evening peaks.

We consider the morning peak commute hours to be 8 to 10 A.M and the evening peak commute hours to be 5 to 7 P.M.

Bicyclists as a share of all traffic by count date in 2020
Average of all locations - AM Peak and PM Peak

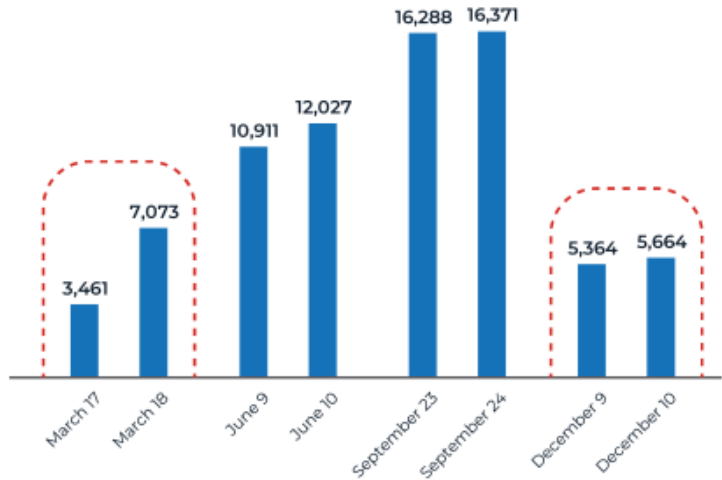


Does not include two locations where we only counted bicyclists: Atlantic Avenue south of Commercial Street and Southwest Corridor Bicycle Path south of Heath Street

People biking generally made up a higher percentage of evening peak commute hours than during the morning peak commute hours.

This trend closely resembled the bicycle volumes. In March, June, and September, bicyclists as a share of all traffic was about a third higher during the evening peak commute hours compared with the morning. In June and September, bicyclists were around 9 percent of all traffic during the evening peak commute hours. In December, the share was around 3 percent during both peak hour periods.

Bicycle volumes by count date in 2020
Sum of all locations - all day total



Bicycle volumes on March 17 were very different from March 18.

Aside from the March counts, the number of people biking was consistent on the first and second count days except each season.

But in March, the number of people biking on the first day was about half of the second day. It rained on March 17, which may have caused fewer people to bike. There was no significant difference between March 17 and March 18 for motor vehicles.

Bicycle counts were higher on both days in December than on the first day in March even though temperatures were lower in December.



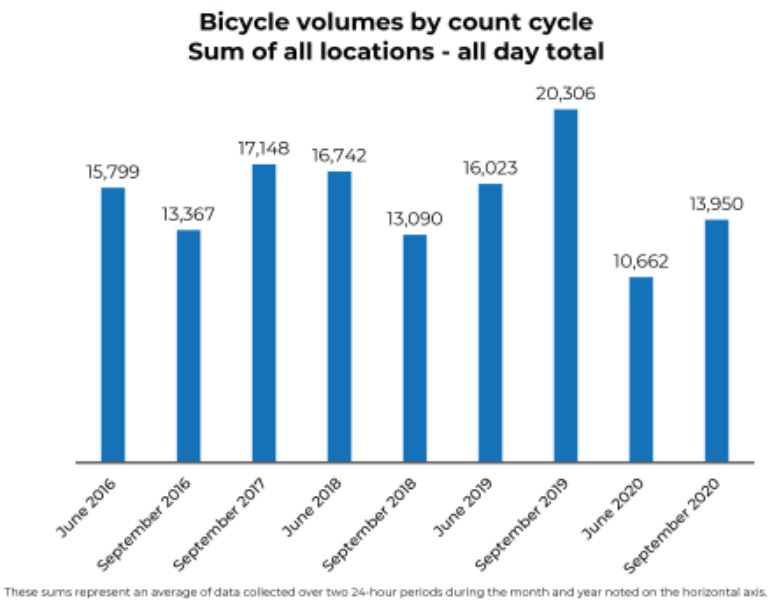
How 2020 Was Different



Travel behavior changed significantly in 2020 due to the COVID-19 pandemic and related restrictions. We can learn some things about how bicycling changed in Boston by comparing our data

from 2020 with previous years.

In this section, we examine [23 locations](#) where we have data for June and September count cycles going back to 2016. [View a list of these locations.](#)

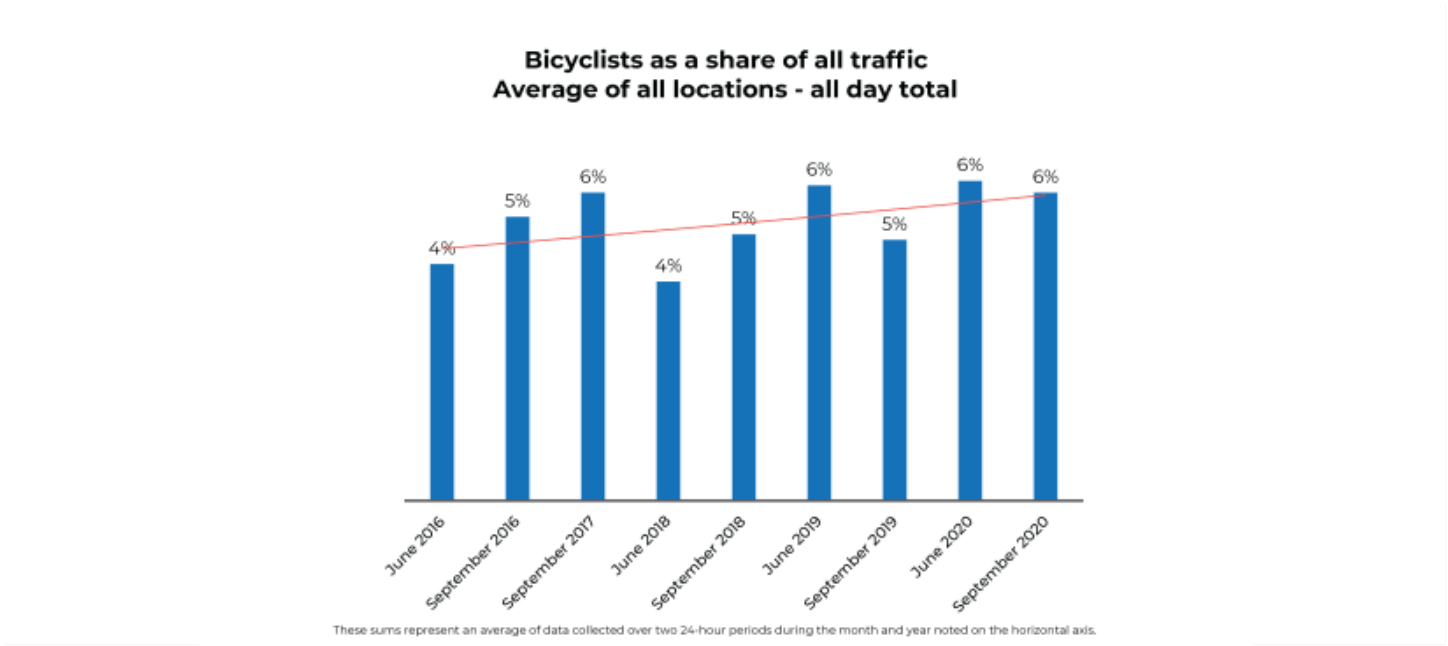


The impact of COVID-19 on bicycle volumes can be seen in June and September 2020. But, it was not as great as we might have expected.

We counted over 10,000 bicyclists at the 23 locations in June 2020. That's about 35 percent less than previous June counts. Lower volumes in June 2020 can be attributed to changes in travel by all modes due to COVID-19 pandemic restrictions.

In September 2020, we counted almost 14,000 bicyclists. That's a similar number to September 2016 and 2018 but less than

September 2017 and 2019.



However, the share of people biking in 2020 was not noticeably different from previous years.

In fact, bicyclists as a share of all traffic has been trending upwards at the 23 locations since we began counting in 2016. Between 2016 and 2020, the share ranged from 4 to 6 percent. It was 6 percent in June and September 2020.

The lack of significant change in 2020 compared to previous years indicates that motor vehicle volumes decreased in 2020 in proportion with bicycle volumes.

To calculate bicycles as a percentage of all vehicles, we divide the number of bikes counted by the number of all vehicles counted (bikes, cars, trucks, and buses).

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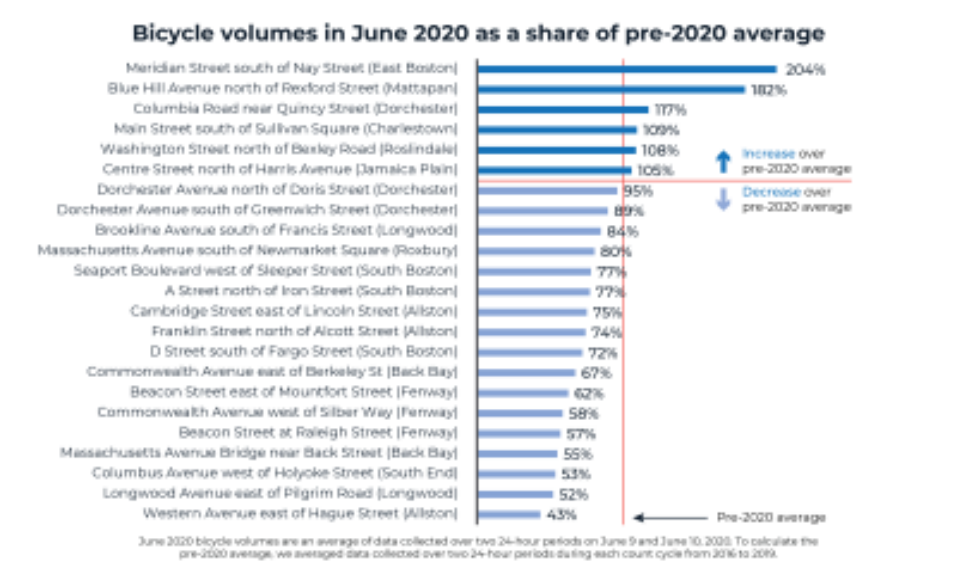
Although bicycle volumes decreased in many locations in 2020, this wasn't the case across the entire City.

In June 2020, bicycle counts along typically busy commuting routes decreased the most relative to their pre-2020 volumes.

At some locations where we counted lower numbers of bicyclists in previous years, we found a significant increase in bicycle traffic in 2020. These locations tended to be in neighborhoods such as Dorchester, Jamaica Plain, Charlestown, and East Boston. These increases could be attributed to recreational bike rides.

You can explore the data further in the adjacent map. Click on a

circle to view more information. You can can also explore the data in the chart below. Click on the chart to enlarge it.



Statewide data shows that from April 2020 through the rest of the year, people around Massachusetts were taking longer, less direct bicycle trips. Many of these trips started and ended near the same location. These traits are typical of recreational trips rather than commute trips.

We calculated this data by dividing the June 2020 bicycle volume by the average bicycle volume for each location prior to 2020.



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By September 2020, bicycle volumes at a majority of locations were at least 90% of pre-2020 volumes.

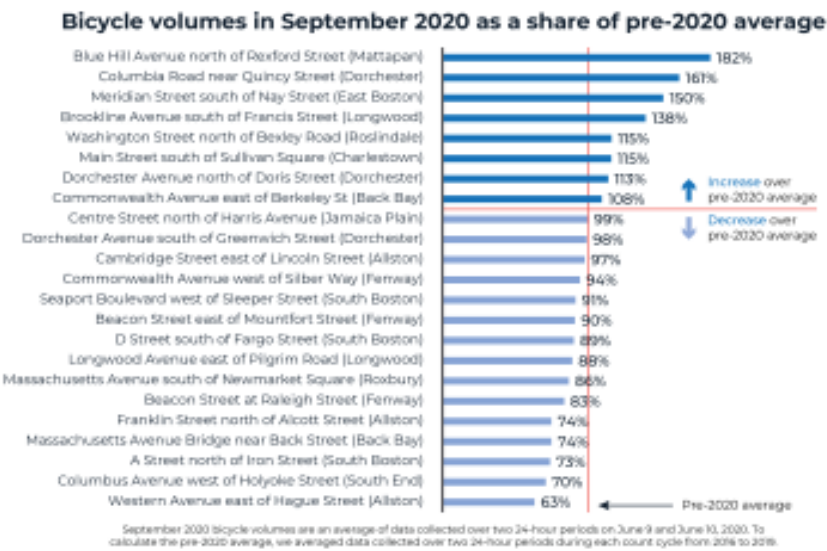
Volumes increased at 19 of the 23 locations from June 2020 to September 2020. In fact, the top five locations that increased from June to September 2020 were near universities and on commuting routes:

- Longwood Avenue east of Pilgrim Road (Longwood): **71% more bicyclists in September 2020 compared to June 2020**
- Brookline Avenue south of Francis Street (Longwood) **64% more bicyclists in September 2020 compared to June 2020**
- Commonwealth Avenue east of Berkeley St (Back Bay) **62% more bicyclists in September 2020 compared to June 2020**
- Commonwealth Avenue west of Silber Way (Fenway) **60% more bicyclists in September 2020 compared to June 2020**
- Beacon Street at Raleigh Street (Fenway) **46% more bicyclists in September 2020 compared to June 2020**

Still, many of the busier pre-pandemic locations remained the

lowest relative to pre-2020 volumes in September 2020. And, locations in residential neighborhoods further from downtown remained higher relative to pre-2020 volumes. Like June, this trend probably reflects the increase in recreational trips and reduction in commuting in 2020.

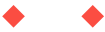
You can explore the data further in the adjacent map. Click on a circle to view more information. You can can also explore the data in the chart below. Click on the chart to enlarge it.



We calculated this data by dividing the September 2020 bicycle volume by the average bicycle volume for each location prior to 2020.



Spring bloom in the Arnold Arboretum



March 2020

Tuesday, March 17, 2020 - Wednesday, March 18, 2020

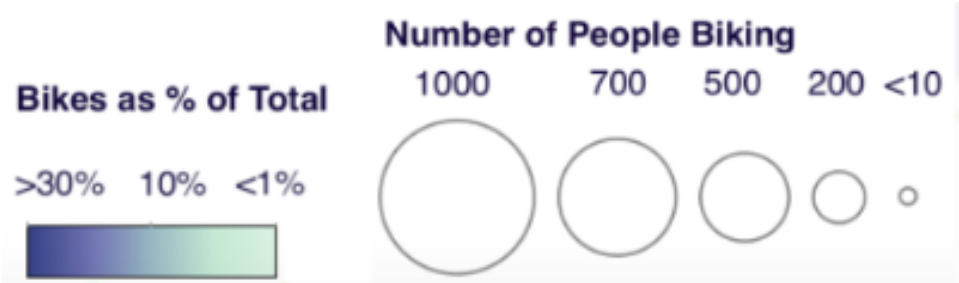
We collected data at 21 locations for 48 hours on March 17, 2020 to March 18, 2020. March 17 was a cloudy day with a light drizzle, a high of 44° and a low of 31°. March 18 was fair and mostly cloudy, with a high of 49° and low of 37°.

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Tuesday, March 17, 2020

AM Peak (8-10 a.m.)

Click on a count location circle to see more information.

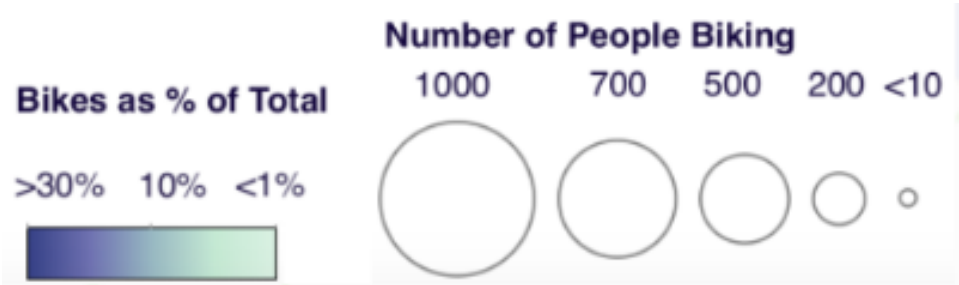


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Tuesday, March 17, 2020

PM Peak (5-7 p.m.)

Click on a count location circle to see more information.

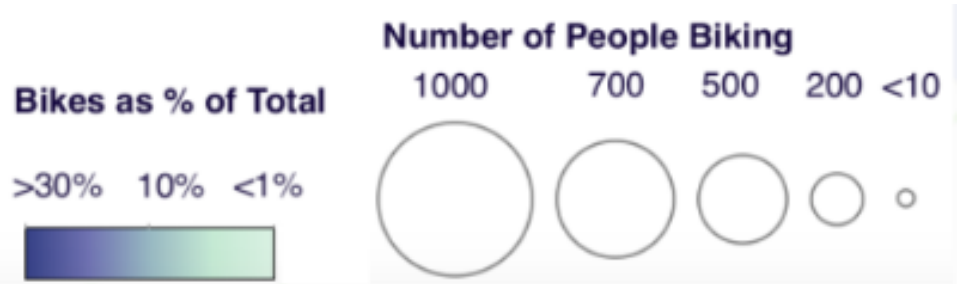


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Wednesday, March 18, 2020

AM Peak (8-10 a.m.)

Click on a count location circle to see more information.

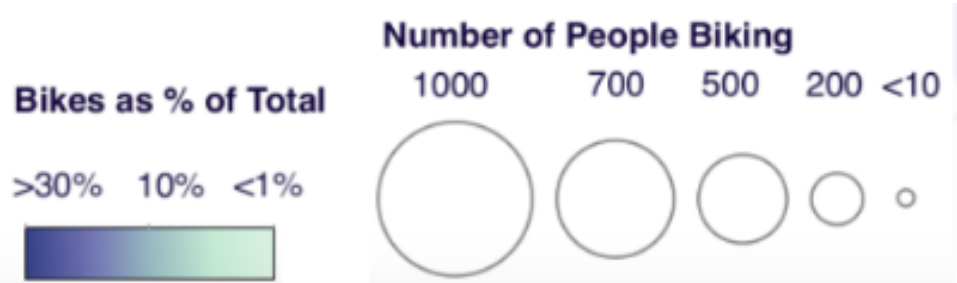


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Wednesday, March 18, 2020

PM Peak (5-7 p.m.)

Click on a count location circle to see more information.





June 2020

Tuesday, June 9, 2020 - Wednesday, June 10, 2020

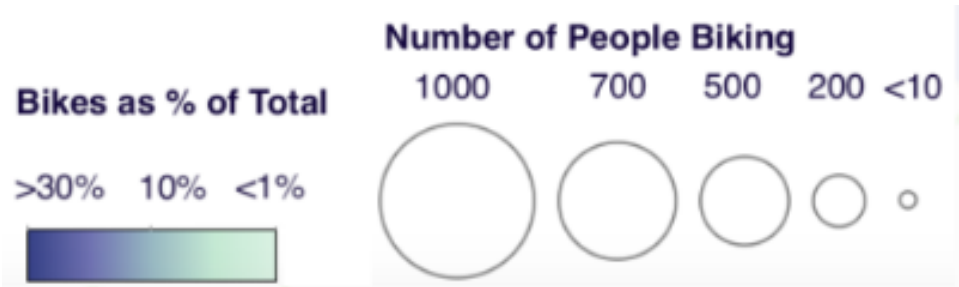
We collected data at 31 locations for 48 hours on June 9, 2020 to June 10, 2020. June 9 was a cloudy day with a high of 80° and a low of 60°. June 10 was mostly cloudy, with a high of 65° and low of 58°.

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Tuesday, June 9, 2020

AM Peak (8-10 a.m.)

Click on a count location circle to see more information.

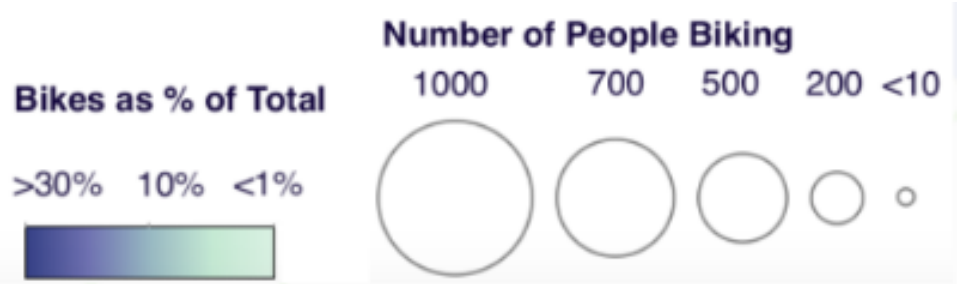


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Tuesday, June 9, 2020

PM Peak (5-7 p.m.)

Click on a count location circle to see more information.

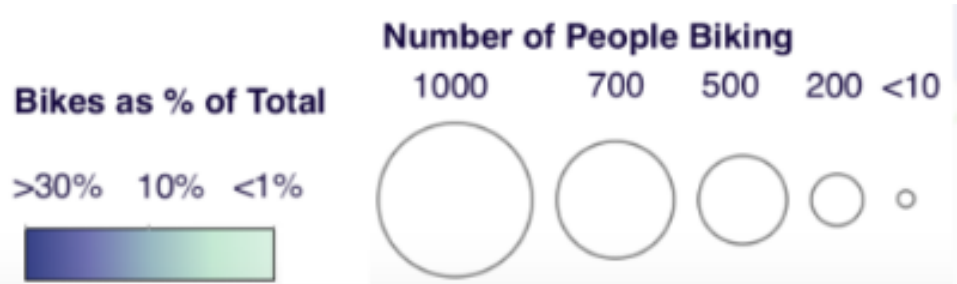


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Wednesday, June 10, 2020

AM Peak (8-10 a.m.)

Click on a count location circle to see more information.

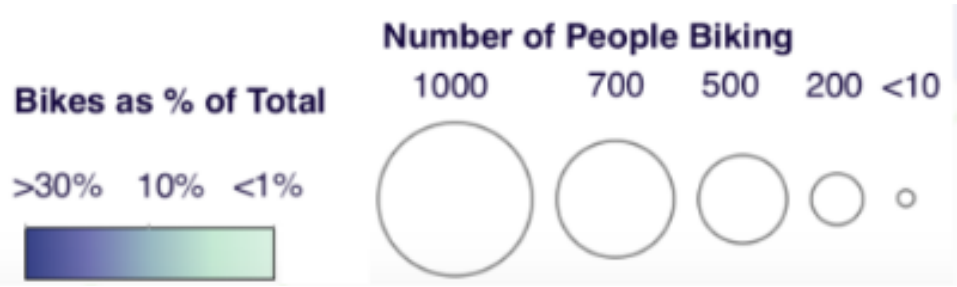


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Wednesday, June 10, 2020

PM Peak (5-7 p.m.)

Click on a count location circle to see more information.



Protected bike lanes were installed along Boston Common in Fall 2020.



September 2020

Wednesday, September 23, 2020 - Thursday, September 24, 2020

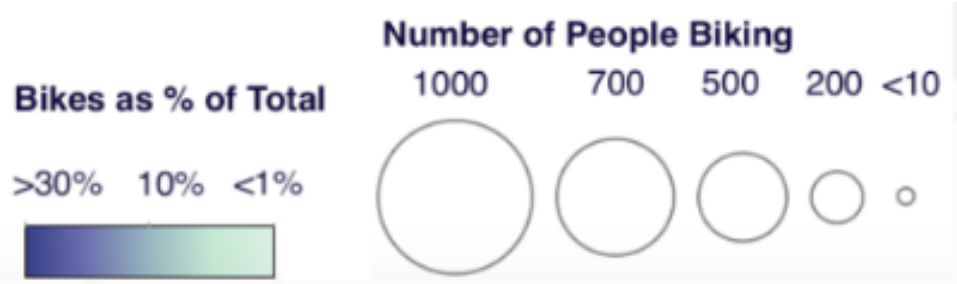
We collected data at 66 locations for 48 hours on September 23, 2020 to September 24, 2020. September 23 was fair and partly cloudy with a high of 79° and a low of 55°. September 24 was mostly cloudy, with a high of 79° and low of 61°.

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Wednesday, September 23, 2020

AM Peak (8-10 a.m.)

Click on a count location circle to see more information.

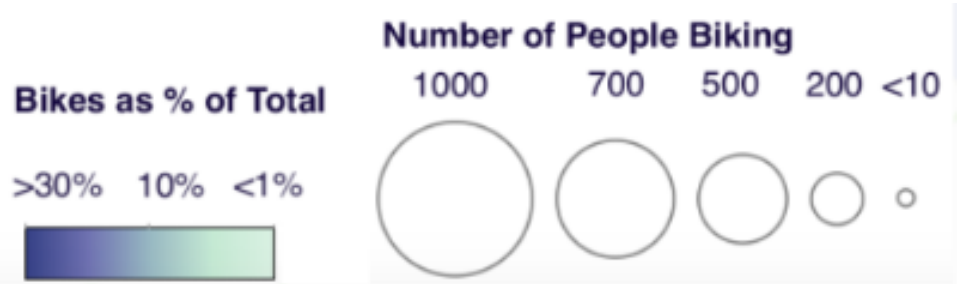


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Wednesday, September 23, 2020

PM Peak (5-7 p.m.)

Click on a count location circle to see more information.

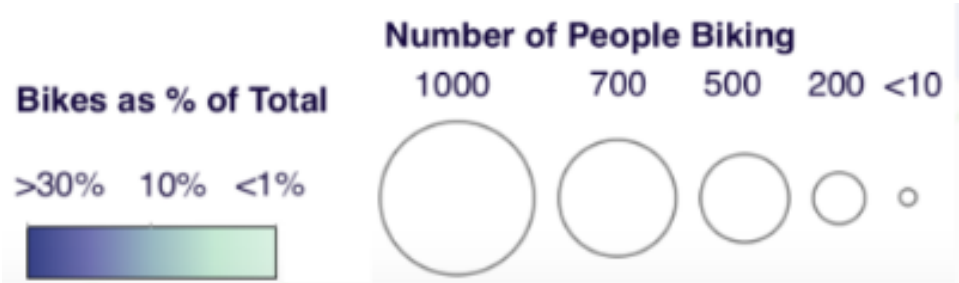


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Thursday, September 24, 2020

AM Peak (8-10 a.m.)

Click on a count location circle to see more information.

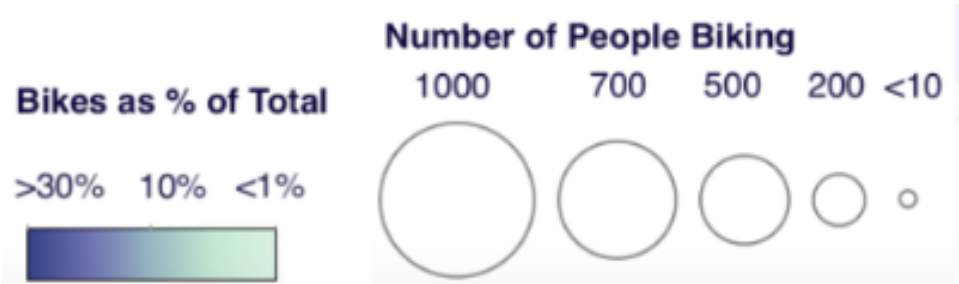


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Thursday, September 24, 2020

PM Peak (5-7 p.m.)

Click on a count location circle to see more information.





December 2020

Tuesday, December 8, 2020 - Wednesday, December 9, 2020

We collected data at locations for 48 hours on Tuesday, December 8, 2020 to Wednesday, December 9, 2020. Both days were cloudy. December 8 had a high of 31° and a low of 26°. December 8 had a high of 36° and low of 24°.

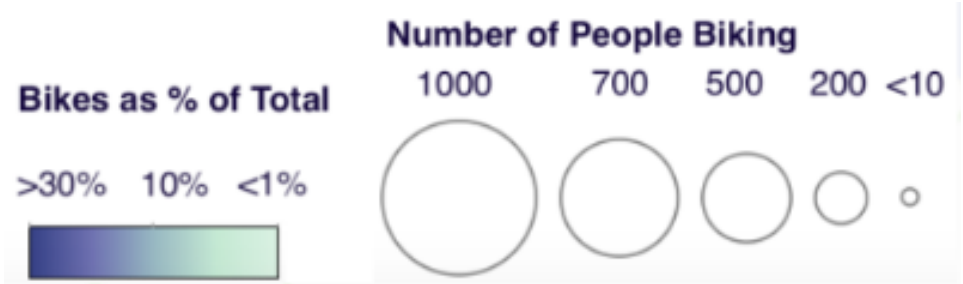
This was the first time we counted bikes in the winter.

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Tuesday, December 8, 2020

AM Peak (8-10 a.m.)

Click on a count location circle to see more information.

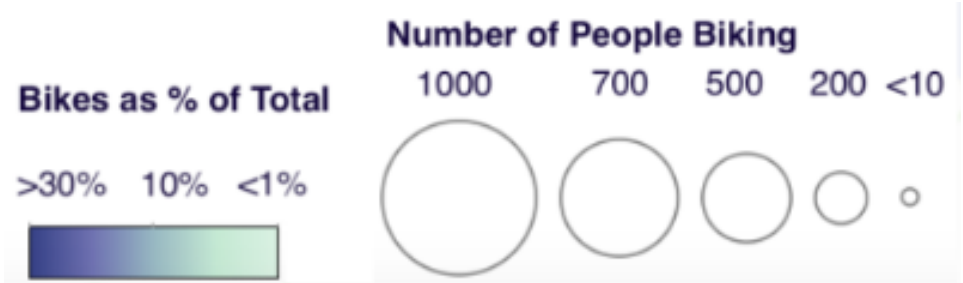


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Tuesday, December 8, 2020

PM Peak (5-7 p.m.)

[Click on a count location circle to see more information.](#)

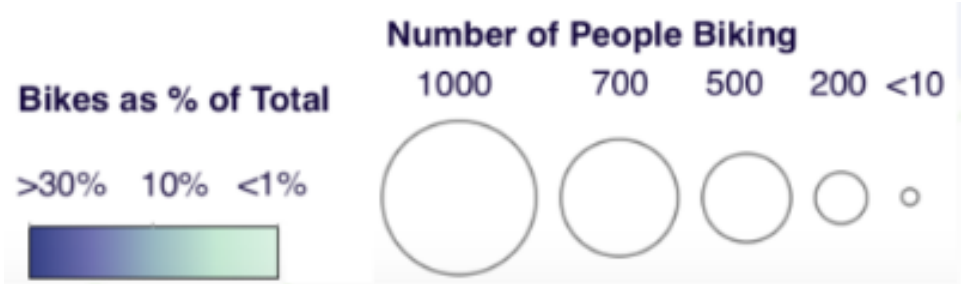


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Wednesday, December 9, 2020

AM Peak (8-10 a.m.)

[Click on a count location circle to see more information.](#)

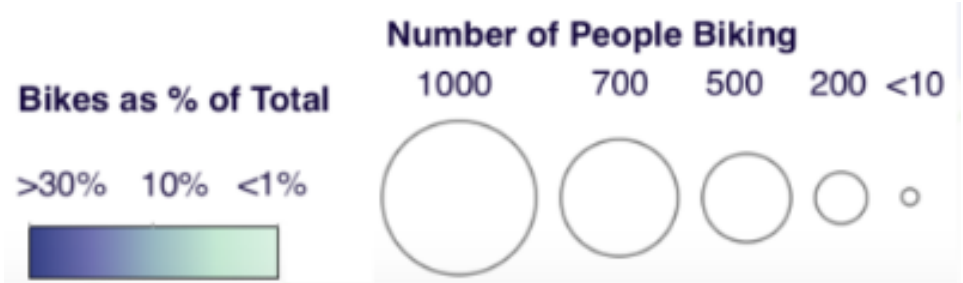


Powered by Esri

Wednesday, December 9, 2020

PM Peak (5-7 p.m.)

Click on a count location circle to see more information.



For more information on biking in Boston, visit boston.gov/bikes